AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) Radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound comprising at least one of radiation-chemically ~~and/or~~ and plasma-chemically modified ~~PTFE powders~~ polytetrafluoroethylene powder including a surface, ~~on the particle surfaces of which~~ and at least one olefinically unsaturated ~~polymers are~~ polymer chemically radically coupled on the surface via a reactive conversion into melt.

2. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which the~~ wherein bonding site of the at least one olefinically unsaturated ~~polymers~~ polymer with the ~~PTFE particle~~ surface is randomly distributed on the polymer chain.

3. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified.

4. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 3, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 50 kGy.

5. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 4, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 100 kGy.

6. (Currently Amended) The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified in ~~the~~ presence of reactants.

7. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 6, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified under ~~the~~ influence of oxygen.

8. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein the ~~polymers have~~ at least one olefinically unsaturated polymer includes olefinically unsaturated groups in ~~the~~ at least one of main chain ~~and/or in the~~ and side chain of the at least one olefinically unsaturated polymer.

9. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein SBS, ABS, SBR, NBR, NR and other butadiene and/or isoprene-homo-, -co- or -ter-polymers are radically coupled as olefinically unsaturated polymers.

10. (Currently Amended) Method for producing a radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~compounds~~ compound ~~according to one of claims 1 through 9, in which PTFE~~ comprising at least one of radiation-chemically and plasma-chemically modified polytetrafluoroethylene powder including a surface, and at least one olefinically unsaturated

polymer chemically radically coupled on the surface via a reactive conversion into melt, comprising reactively converting in a melt ~~powders are reactively converted~~ polytetrafluoroethylene powder and at least one olefinically unsaturated polymer, the polytetrafluoroethylene powder including ~~with~~ reactive perfluoroalkyl-(peroxy) radical centers after [[a]] at least one of radiation-chemical ~~and/or~~ and plasma-chemical modification ~~into a melt with the addition of olefinically unsaturated polymers~~.

11. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the polytetrafluoroethylene powder comprises radiation-chemically modified ~~PTFE~~ polytetrafluoroethylene powder ~~is used~~.

12. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 50 kGy.

13. (Currently Amended) ~~Method~~ The method according to claim 12, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 100 kGy.

14. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified in ~~the~~ presence of reactants.

15. (Currently Amended) ~~Method~~ The method according to claim 14, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified under ~~the~~ influence of oxygen.

16. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is ~~used as~~ a micropowder.

17. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the reaction into a melt is ~~realized~~ performed in a melt mixer.

18. (Currently Amended) ~~Method~~ The method according to claim 17, ~~in which~~ wherein the reaction into a melt is ~~realized~~ performed in an extruder.

19. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein ~~polymers with olefinically unsaturated groups in the main chain and/or in the side chain are used~~ the at least one olefinically unsaturated polymer includes olefinically unsaturated groups in at least one of main chain and side chain of the at least one olefinically unsaturated polymer.

20. (Currently Amended) ~~Method~~ The method according to claim 10 ~~in which as~~ the at least one olefinically unsaturated polymer ~~polymers,~~ is SBS, ABS, SBR, NBR, NR and other butadiene- and/or isoprene-homo-, -co- or -ter-polymers ~~are used~~.